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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/756,903

01/14/2004

Sung H. Kuo

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11/14/2006

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EXAMINER
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PHAN, RAYMOND NGAN

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/756,903

Applicant(s)

KUO ET AL.

Examiner

Raymond Phan

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **Part III DETAILED ACTION**

#### ***Notice to Applicant(s)***

1. This action is responsive to the following communications: amendment filed on September 8, 2006.
2. This application has been examined. Claims 1-24 are pending.

#### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Examiner is requesting the new title that is clearly described the invention to which the claims are directed.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.).

5. Claims 1-24 are rejected under 35 U.S.C. § 102(e) as being anticipated by Miller (US No 6,799,238).

In regard to claims 1, 15, 18, Miller discloses a system, comprising: a bridge 120 (see figure 1); a logic device 155 (see figure 1); and a plurality of slots 130, 135 coupled to the bridge 120 via a bus segment 160 and to the logic device 155 (see figure 1, col. 2, lines 11-36), each slot being capable of receiving an add-in card (see figure 1, col. 2, lines 47-55); wherein the logic device determines whether one or more cards are installed in any of the slots and number of cards that

are installed (see col. 2, lines 47-67) and, if one or more cards are installed in any of the slot, the logic device determines in which slot one or more cards are installed (see col. 2, lines 47-67) and causes the bridge to configure the bus segment based on location of cards in the slots (see col. 2, lines 47-55) and the number of one or more installed cards (see col. 2, line 56 through col. 3, line 14).

In regard to claim 2, Miller discloses wherein the logic device comprises a programmable logic device (see col. 2, lines 23-36).

In regard to claim 3, Miller discloses wherein the logic device receives presence signals (i.e. PRSNT) associated with each slot, the presence signals for a particular slot encode whether or not a card is present in that particular slot (see col. 2, lines 57-67).

In regard to claims 4, 14, Miller discloses wherein each add-in card comports with any of a plurality of card types (see col. 3, lines 1-5) and the bridge configures the bus segment based on card type as well as location of the number of cards (see col. 3, lines 1-14).

In regard to claims 5, 19, Miller discloses wherein the bridge configures the bus segment by selecting one of a plurality of selectable clock frequencies for the bus segment (see col. 3, lines 25-48).

In regard to claims 6, 16, Miller discloses wherein the bridge configures the bus segment by selecting a higher clock frequency if a card is installed in a predetermined slot and no other cards are installed in other slots (see col. 3, lines 25-48) or by selecting a lower clock frequency if a plurality of cards are installed in the slots or only a single card is installed in a slot other than the predetermined slot (see col. 3, lines 25-48).

In regard to claims 7, 17, 20, Miller discloses wherein the bridge also configures the bus segment by causing one of a plurality of selectable voltage levels to be applied to the bus segment (see col. 2, lines 57-67).

In regard to claims 8, 24, Miller discloses wherein the bridge configures the bus segment by causing one of a plurality of selectable voltage levels to be applied to the bus segment (see col. 2, lines 57-67).

In regard to claim 9, Miller discloses wherein the bus segment is a PCI-X bus segment (see col. 2, lines 57-67).

In regard to claims 10, 12, Miller discloses a logic device that contains a plurality of gates (see figure 1, col. 2, lines 23-36) configured to receive presence signals (i.e. PRSNT) from a plurality of slots into which add-in cards may be installed (see col. 2, lines 57-63), the presence signals indicating whether a card is installed in a particular slot (see col. 2, lines 57-63), the logic device's gates are further configured to cause a bridge device to configure a clock frequency of a bus segment based on slot location for the installed cards and further based on the number of cards installed (see col. 3, lines 1-40).

In regard to claim 11, Miller discloses wherein the slots comprise a middle agent slot and an end-agent slot (see figure 1), the middle agent slot being electrically disposed between the bridge and the end agent slot (see figure 1), and the gates of the logic device are further configured to individually determine whether add-in cards are installed in the end agent slot and the middle agent slot (see figure 1).

In regard to claim 13, Miller discloses wherein the bridge device is configured to couple to a logic device, and wherein the bridge device receives a signal from the logic device that causes the bridge device to configure the bus

segment at speed that is lower than a rated speed of said card (see col. 2, lines 56-67).

In regard to claim 21, Miller discloses a method usable in conjunction with configuring a bus segment, the method comprising: determining whether a card is located in a first of two slots coupled to the bus segment (see figure 1, col. 2, lines 37-67); and if a card is installed in the first slot, preventing the bus segment from operating at a maximum speed permitted by the bus segment and the number of cards installed (see col. 3, lines 1-40).

In regard to claim 22, Miller discloses further comprising configuring the bus segment to operate at its maximum speed only if the second of the two slots has a card located therein (see col. 3, lines 1-14).

In regard to claim 23, Miller discloses wherein the bus segment is configured to operate at the maximum speed only if the card located in the second slot also is operational at the maximum speed (see col. 3, lines 1-40).

### ***Response to Amendment***

6. Applicant's arguments and amendment, see on pages 3-10, filed on September 8, 2006, with respect to the rejection of claims 1-24 under 35USC102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Miller.

***Conclusion***

7. All claims are rejected.
8. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

**Olson et al. (US No. 6,484,222)** disclose a system for incorporating multiple expansion slots in a variable speed peripheral bus.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (571) 272-3639 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see [hop://pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



**Raymond Phan**  
**November 7, 2006**